REMARKS

A. INTRODUCTION

The present invention is an exercise roller. As the specification explains, applicant's roller differs from prior art, cylindrical rollers used for exercise because the top and bottom surfaces have different curvatures. Consequently, beginners and advanced exercisers can use the roller for balance and other exercises.

The pillows that the PTO applied to the claims are not designed for balance exercises. The PTO argues that the exercise function is irrelevant because of similarities in structure. Further, the PTO's position is that the limitations to "top" and "bottom" are unimportant because those orientations are arbitrary. We will deal with those arguments below.

B. THE CLAIMS DISTINGUISH OVER THE CITED ART

Applicant presents new claims to stress particular features of the invention that distinguish the invention from the cited prior art, including the following:

- A roller with convex surfaces having different curvatures such that the roller rolls differently depending whether one or the other surface is resting on a horizontal surface.

- The surfaces are continuously convex and intersect.

- The configuration of the roller is such that the roller is stable when it is rolled from its rest position so that it returns to the rest position whether the roller is on either surface.

Applicant uses "stable" to distinguish from "stationary." A stable configuration can be rolled and yet returns to a rest position. A stationary configuration is not intended to be rolled. It remains on one position under normal use.

The PTO relies on two references: Ranz, Patent No. 1,274,595 (1918) and Evans, Patent No. D330,989 (1992). Ranz is not an elongated roller be-

cause it does not roll (length demonstrably greater than its width or diameter). If the Ranz pillow is a roller, then almost all objects must be considered to be rollers. By that reasoning, a cube is a roller because one can apply a force on one face and cause the cube to pivot about the opposite, lower edge. However, when the cube continues about the edge, it falls on to another face without rolling.

Although people may say, "Roll the dice," dice do not roll. They bounce and rotate in the air. Ranz would not roll through a full 360° because its flat faces prevent rolling. Likewise, the Evans back cushion also will not roll because of its flat face (left face in Fig. 1).

Claim 9 distinguishes over Ranz, in part, because the claim requires that, "the length being substantially greater than the maximum distance between the first and second surfaces of the roller." This further defines applicant's invention from the mere presence of the term "elongated" in the claim. While the PTO may contend that Ranz is elongated, it does not show that the length is substantially greater than the distance between the surfaces. Therefore, claim 9 distinguishes over Ranz.

The claim also distinguishes over Evans because the claim requires first and second curved, convex surfaces. The flat surface in Evans is neither curved or convex.

Claim 10 requires that the center of gravity remain within the roller when the roller is rolled along the first or second surfaces. Therefore, the roller returns to its normal position when force on the roller is released. Even if one could balance the Ranz pillow temporarily, the slightest force on the pillow would cause it to fall on to one of the flat faces.

Claim 11 requires the first and second surfaces to intersect each other. Those surfaces are curved, but in Ranz, the curved surfaces are separated by

flat surfaces. Applicant uses the phrase "wholly convex" to mean a surface that is entirely convex. That distinguishes Evans which has a flat surface.

Claim 13 distinguishes over the cited art because the claim requires intersecting, curved outer surfaces. Ranz's curved surfaces do not intersect. Likewise, the claim requires two convex surfaces (wholly convex in claim 14), and Evans lacks a second convex surface.

Claim 15 introduces the concept of the roller returning to one of two normal positions, one for each surface, when a force applied to the roller is released. The normal position is one in which a longitudinal line rests on a horizontal surface. Claim 15 is a means-plus-function claim invoking 35 U.S.C. § 112, ¶ 6. The curved shape of the surfaces and the distance between the surfaces is at least one of the means that the specification discloses.

The use of "horizontal" in the claims does not mean that the roller's use is limited to horizontal surfaces. One can use the roller while leaning against a wall or on a ramp. Nevertheless, the "horizontal" language merely defines the roller's characteristics with respect to a horizontal surface.

Ranz does not teach this feature because once one applies a force on Ranz, it will fall to one of the flat sides. Evans cannot move from it normal position on the flat face. Therefore, it cannot return to a normal position when the roller is released.

The requirement that the surfaces intersect in claim 16 further distinguishes that claim from Ranz, and the "wholly convex" language of claim 17 further distinguishes that claim from Evans.

Claim 18, 19 and 20 are similar to claims 15, 16 and 17 except they are not in means-plus-function format. However, they distinguish over Ranz and Evans for similar reasons.

Claim 21 requires that the roller remain stable at rest when no force is applied to the roller. By "no force," applicant excludes the force of gravity. In

the context of the application, applicant uses the word stable to mean that there is a longitudinal line on each surface where the roller will rest. Of course, because the roller is formed of compressible material and the horizontal surface on which the roller rests may be an exercise mat or carpeted floor, the "line" may have some width.

Ranz lacks this feature. Evans is not *stable* on both surfaces in this context because its pillow remains stationary when resting on its flat surface. Applicant uses "stable" to mean that the roller can roll along either surface when a force is applied but returns to the normal position when force is released. With the definition, Evans is not stable on both surfaces because it cannot roll along both surfaces.

Claim 22 requires that the surfaces are wholly convex, a concept discussed earlier. Ranz and Evans lack this feature due to Ranz's straight sides and Evans flat side. The claim also requires that the curved surfaces intersect each other, which Ranz's straight sides prevent.

Claim 23 claims the relationship of the distances of axes of curvature of the surfaces and the surfaces themselves. Ranz does not teach that relationship, and Evans lacks two axes of curvature because one face is flat.

Claim 24 also claims the relationship between axes of curvature and the surfaces. In particular, "the maximum distance between the first and second surfaces of the roller [is] at least as great as half the distance between the centers of curvature of the first and second surfaces." Though not explicitly discussed in the specification, the drawings show this relationship. Ranz does not teach this element because it has a larger "maximum distance." Because the claim requires both surfaces to be curved, Evans also does not meet this element.

Claim 25 requires that the surfaces be circular. Evans' flat surface is not circular, and Ranz's curved surfaces are not necessarily circular.
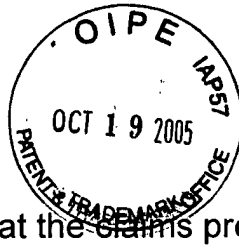
C. CONCLUSION

We believe that the claims presented with this response define over the prior art and overcome the rejections. Thus, this case is in condition for allowance. If you have any questions that we could resolve by telephone, please call us for a brief interview.

October 17, 2005

Michael D. Harris, Reg. No. 26,690
Attorney for Applicant

KLEINBERG & LERNER, LLP
2049 Century Park East, Suite 1080
Los Angeles, California 90067
(310) 557-1511 • Fax: (310) 557-1540